Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

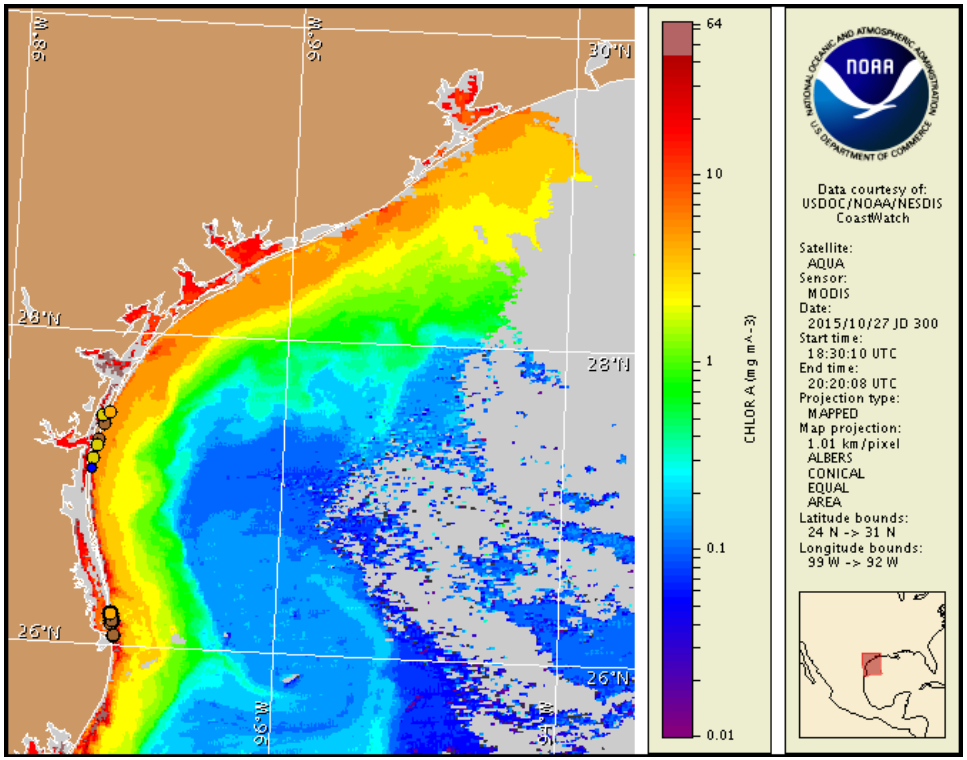
Thursday, 29 October 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, October 26, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from October 19 to 29: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml

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To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Karenia brevis (commonly known as Texas red tide) ranges from not present to high concentrations along the Texas coast from Corpus Christi Bay to the Rio Grande. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for Thursday, October 29 through Monday, November 2 is listed below:

Region: Forecast (Duration)
Bay region-Corpus Christi Bay: High (Th-Sa), Moderate (Su-M)
Aransas Pass to PINS region: Moderate (Th, M), High (F-Sa), Very low (Su)
Bay region-Upper Laguna Madre: Moderate (Th-M)
Padre Island National Seashore region: Moderate (Th, M), High (F), Very low (Sa-Su)
Bay region-Lower Laguna Madre to Laguna Vista: High (Th-Sa), Moderate (Su-M)
Mansfield Pass to Beach Access 6 region: Moderate (Th-F), Low (Sa-Su), High (M)
Beach Access 6 to Rio Grande region: Moderate (Th-F), Low (Sa-Su), High (M)
All Other Texas Regions: None expected (Th-M)

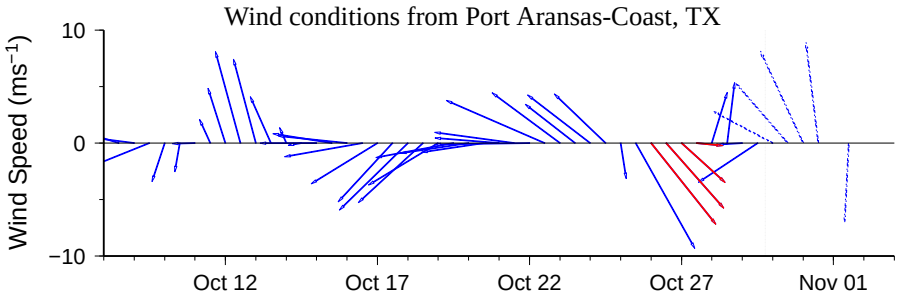
Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Over the past few days, reports of respiratory irritation have been received from Padre Island National Seashore. Reports of discolored water have been received from Corpus Christi Bay and Padre Island National Seashore.

Analysis

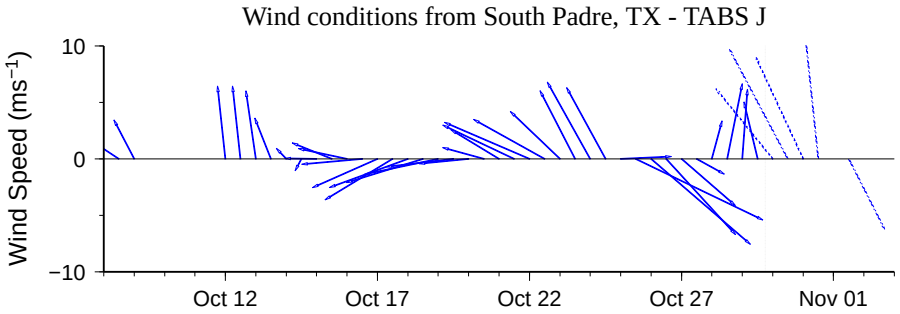
Karenia brevis concentrations range from 'background' to 'high' from Corpus Christi Bay to the Rio Grande. Within the Aransas Bay region, the Imaging FlowCytobot at UTMSI Pier in Port Aransas indicates *K. brevis* concentrations between 'background' and 'low b' (TPWD, TAMU; 10/26-29). New sampling alongshore the Padre Island National Seashore indicates *K. brevis* concentrations have increased to 'medium' from 'low b' while new sampling alongshore South Padre Island indicates *K. brevis* concentrations have decreased to 'medium' from 'high' (TPWD; 10/22-10/28). Reports of discolored water have been reported in Corpus Christi Bay and alongshore Padre Island National Seashore. Reports of respiratory irritation were received from Padre Island National Seashore this week. Detailed sample information and a summary of impacts can be obtained through Texas Parks and Wildlife Department at: http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml. For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Recent MODIS Aqua imagery (10/27, shown left) shows a band of elevated chlorophyll (2 to 4μg/L) stretching alongshore Texas coast from the Galveston Bay region to Mansfield Pass. Patches of elevated to very high chlorophyll (2 to >20μg/L) are present along- and offshore the Texas coast from Mansfield Pass to the Rio Grande.

Forecast models based on predicted near-surface currents indicate a maximum bloom transport from coastal sample locations of 20km south from Pass Cavallo, 10km north from Aransas Pass, and 60km north from Brazos Santiago Pass from October 27 to November 1. -Davis, Urízar



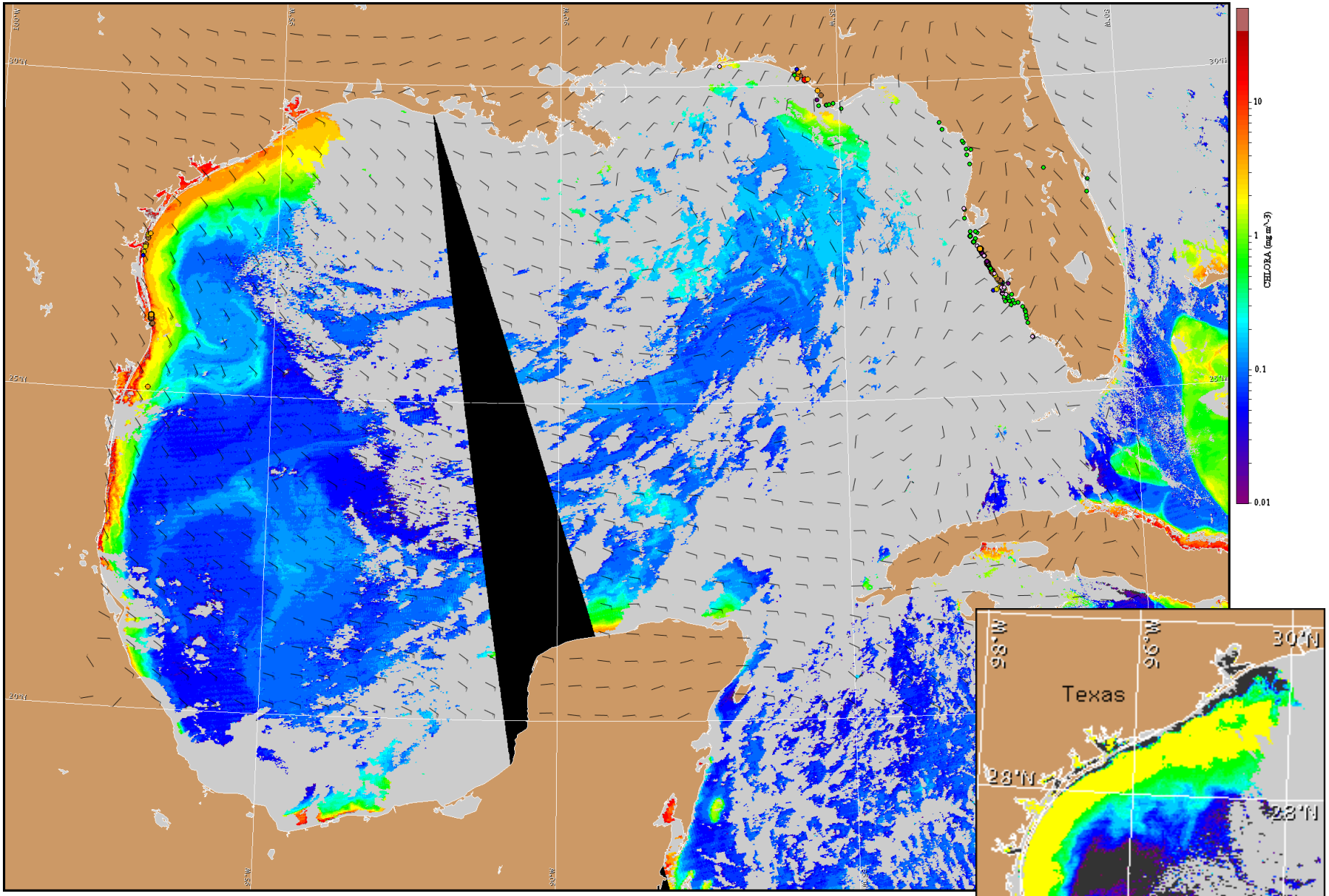
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Wind Analysis

Port Aransas to Baffin Bay: Southeast to south winds (15-25kn, 8-13m/s) today through Friday. South winds (15-20kn, 8-10m/s) Saturday becoming west winds (10-15kn, 5-8m/s) in the afternoon. North winds (5-15kn, 3-8m/s) Saturday evening through Sunday. Northeast to east winds (5kn, 3m/s) Monday becoming southeast winds (10kn, 5m/s) Monday evening.

Port Mansfield to the Rio Grande: Southeast to south winds (10-24kn, 5-12m/s) today through Friday. South winds (11-21kn, 6-12m/s) Saturday becoming northwest winds (8-11kn, 4-6m/s) in the afternoon. North winds (9-16kn, 5-8m/s) Saturday evening through Sunday. Southeast winds (7-11kn, 4-6m/s) Monday.



Satellite chlorophyll image and forecast winds for October 30, 2015 12Z with points representing cell concentration sampling data from October 19 to 29: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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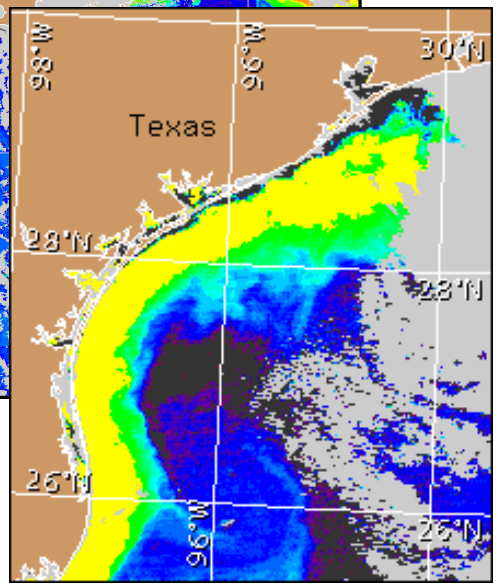

Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).